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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930.616	08/14/2001	Gerald D. Benjamin	019143.0334	1611

7590 11/29/2004
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EXAMINER

GEREZGHER, YEMANE M

ART UNIT	PAPER NUMBER
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2144

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,616

Applicant(s)

BENJAMIN ET AL.

Examiner

Yemane M Gerezgiher

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. This application has been examined. Claims 1-21 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-5, 14, 15, 18, 19, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by McFarlane et al. (U.S. Patent Number 6,704,410) hereinafter referred to as McFarlane.

As per claims 1, 14, 18 and 20, McFarlane disclosed a method and system for a dynamic skill-based routing of calls received at a switch in a call center by dynamically updating service agent's effective service level representing their ability to satisfy the calls or requests received from the callers/clients in a communication network (See ABSTRACT, Column

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12, Lines 33-43 and Column 2, Lines 55-65). McFarlane disclosed receiving a request from a client creating a communication link with a suitable service agent (See Column 9, Lines 21-28 and Figure 3, Step 301), upon receiving the request/call, McFarlane disclosed generating a user profile by collecting the customer data (See Column 10, Lines 1-19, Column 6, Lines 3-6 and Column 6, Lines 5-64) the customer data having therein plurality of attributes (See Column 10, Lines 38-55) where the profile of the customer was compared to the skill-based record of the service agents table and assigning the customer by making a connection via the switch in the call center to an agent whose skill best match the need of the calling customer by checking the availability, skill level of the agent in selecting the service agent (See Column 10, Lines 65 through Column 11, Lines 2 and Column 7, Lines 36-51).

As per claim 2, McFarlane disclosed establishing a communication between the calling customer and an Interactive Voice Response System, receiving response from a client and generating a profile based on the received information from the user. (See Column 5, Lines 39-50 and Column 10, Lines 1-19, Column 6, Lines 3-6 and Column 6, Lines 5-64).

As per claims 3, 15, 19 and 21, McFarlane disclosed correlating the profile having attributed with the skill entry

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of the service agents (See Figure 3 and Column 10, Lines 10-67) and organizing the mapping and directing the requests by applying "dynamic predictors and artificial intelligence algorithms to process the data to regulate the handling of the call connections". (See Column 8, Lines 45-48).

As per claim 4, McFarlane disclosed assigning best match service agent to the calling customer based on the skill table where the selecting further included analyzing availability of the agent(s) and selecting an agent that best match the request of the customer based on availability of the service agent(s) and establishing a communication link between the service agent and the customer (claim 5). (See Figure 3, Column 10, Line 65 through Column 11 Line 2 and Column 14, Lines 37-44).

4. Claims 6, 7, 8, 10, 13 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Allen (EP 1111890 A2).

As per claim 6 and 16, Allen disclosed a dynamic skill-based routing in a telecommunication network by avoiding the use of a static skill-based routing table, which required a network administrator to make changes manually to the static table and providing a dynamic update to the skill tables (See ABSTRACT, Column 3, Lines 9-49). Allen disclosed receiving a an agent information from each switch in a call center to a call center

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controller server (See Column 3, Lines 46-49) updating the skill tables at the call center controller server and transmitting the dynamically updated skill tables to each switch in plurality of call centers allowing each call center to use updated skill table in routing incoming requests/calls. See Column 3, Line 50 through Column 4, Line 37, Figures 1 and 2 and Column 5, Line 54 through Column 6, Line 2.

As per claims 7 and 8, Allen disclosed establishing a communication between the caller/customer and an Interactive Voice Response (IVR) requesting caller's information to help rout the call to an appropriate service agent in order to properly service the call. See Column 1, Line 51 through Column 2, Line 8.

As per claim 10, Allen disclosed an administrator involvement configuring routing preferences on each skill based routing information. See Column 3, Lines 9-19 and Lines 49-50.

As per claim 13, Allen disclosed the switching calls in the call center comprising ACD (Automatic Call Distributor). See Column 1, Lines 3-34, 46-50 and Column 2, Lines 1-2 and 23-37.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6-13, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over McFarlane et al. (U.S. Patent Number 6,704,410) in view of Allen (EP 1111890 A2).

With respect to the claim rejection made to claims 1-5, 14-15 and 18-21, McFarlane further disclosed dynamically updating the augmented service agent's skills information table by continuously monitoring the skill level of each service agent and assigning agent skill level in call centers according to agents augmented skill representing their ability provide service (See Column 2, Lines 5-65, Column 3, Lines 49-58 and Column 1, Line 20 through Column 12, Line 67). McFarlane disclosed associating agent information of a specific agent and updating the skill level information of that agent where division of the agents skill been updated that is related to the specific service provided to the customer (claims 9, 12 and 17,

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See Figure 3, Steps 308-313) and establishing a communication between the calling customer and an Interactive Voice Response System, receiving response from a client and generating a profile based on the received information from the user (claims 7 and 8). (See Column 5, Lines 39-50 and Column 10, Lines 1-19, Column 6, Lines 3-6 and Column 6, Lines 5-64).

McFarlane substantially disclosed the invention as claimed including a dynamic method of updating the skills table. However, McFarlane was silent about "communicating the skills table to a switch remotely located from a server". However, as evidenced by the teachings of Allen as applied to claims 6 and 16 above, dynamically updating and transmitting the updated skills table the switches or call center(s) from a server remotely located was well known in the art at the time the invention was made. Allen disclosed updating the skill tables at the call center controller server and transmitting the dynamically updated skill tables to each switch in plurality of call centers allowing each call center to use updated skill table in routing incoming requests/calls. See Column 3, Line 50 through Column 4, Line 37, Figures 1 and 2 and Column 5, Line 54 through Column 6, Line 2.

Thus, it is respectfully submitted that it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to take the teachings of Allen related to dynamically updating skill tables and transmitting the updated skill tables to a call center from a remotely located controller server and have modified the teachings of McFarlane related to dynamic skill-based routing requests received on a call distribution system in a communication network so that each switch or call center to queue in bound calls to multiple remote call center servers. See Column 3, Line 57 through Column 4, Line 6.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

- a. Judkins et al. (US 6763104 B1) entitled: "Call center IVR and ACD scripting method and graphical user interface"
- b. Edwards (US 6744877 B1) entitled: "Method and system for enterprise service balancing"
- c. Jensen (US 6741698 B1) entitled: "Call management system using dynamic threshold adjustment"
- d. Gargeya et al. (US 6714643 B1) entitled: "System and method for implementing wait time estimation in automatic call distribution queues"
- e. Judkins et al. (US 6707904 B1) entitled: "Method and system for collecting reports for call center monitoring by supervisor"
- f. Ezerzer et al. (US 6697858 B1) entitled: "Call center"
- g. Agusta (US 20040005048 A1) entitled: "Method and apparatus for skills-based task routing"
- h. Judkins et al. (US 6587556 B1) entitled: "Skills based routing method and system for call center"

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- i. Agusta (US 6584192 B1) entitled: "Method and apparatus for skills-based task routing"
- j. Torba et al. (US 6563788 B1) entitled: "Method and apparatus for call distribution and override with priority recognition and fairness timing routines"
- k. Mengshoel et al. (US 20030059029 A1) ENTITLED: "Multi-site responsibility-based routing"
- l. Brewster et al. (US 6539538 B1) entitled: "Intelligent information routing system and method"
- m. Baker et al. (US 20030026414 A1) entitled: "System and method for distributing customer contacts"
- n. Hung et al. (US 20020159475 A1) entitled: "Integrated internet and voice enabled call center"
- o. McFarlane et al. (US 6453038 B1) entitled: "System for integrating agent database access skills in call center agent assignment applications"
- p. Doyle et al. (US 6424709 B1) entitled: "Skill-based call routing"
- q. Andruska et al. (US 6408066 B1) entitled: "ACD skill-based routing"
- r. Beck et al. (US 6381640 B1) entitled: "Method and apparatus for automated personalization and presentation of workload assignments to agents within a multimedia communication center"
- s. Weiss (US 20020006191 A1) entitled: "Call distribution system and method"
- t. Miloslavsky (US 6185292 B1) entitled: "Skill-based real-time call routing in telephony systems"
- u. Shaffer et al. (US 6128380 A) entitled: "Automatic call distribution and training system"
- v. Sassin et al. (US 6058435 A) entitled: "Apparatus and methods for responding to multimedia communications based on content analysis"
- w. Brewster et al. (US 5870464 A) entitled: "Intelligent information routing system and method"
- x. Brooks et al. (US 5825869 A) entitled: "Call management method and system for skill-based routing"

FOREIGN PATENT DOCUMENTS

- y. Doyle et al. (EP 1056264 A2) entitled: "Dynamic skill-based call routing depending on occupancy levels of agents"
- z. Doyle et al. (EP 1039732 A2) entitled: "Improved skill-based call routing"

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aa. Brooks et al. (EP 740450 A2) entitled: "Method and apparatus for skill-based routing in a call center"

8. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Yemane Gerezgiher whose telephone number is (571) 272-3927. The examiner can normally be reached on Monday- Friday from 9:00 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful. The examiner's supervisor, William Cuchlinski, can be reached at (571) 272-3925.

YMG

TC 2100, AU 2144


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